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EXAMINER

SING, SIMON P

ART UNIT

PAPER NUMBER

2645

DATE MAILED: 07/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/394,097

Applicant(s)

DAVIS ET AL.

Examiner

Simon Sing

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 1 and 5-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 3-4 of the Remark filed on 5/7/2003, with respect to claims 1-19 have been fully considered and are persuasive. The final rejection of claims 1-19 has been withdrawn.

Claim Objections

2. Claims 1, 5, 6, 7 and 8 recite the limitation "said transmit path". There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 9, 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chamberlin et al. US 4,817,127 in view of Villa-Real US 4,481,382.

3.1 Regarding claim 1, Chamberlin discloses a modular telephone system in figures 4 and 6. Chamberlin teaches using a speakerphone 18 (column 13, lines 29-31) with

two recording/playback modules 12 and 14, one for playback and one for recording (column 21, lines 27-36). Chamberlin also teaches independent operation of each recording/playback module, and independent operation of the speakerphone (column 16, lines 19-43). Chamberlin's telephone system comprising:

- a microphone signal (a speakerphone inherently has a microphone which produces a signal);

- a gain module (a microphone inherently requires an amplifier to boost up its signal level for further processing);

- a message playback signal from recording/playback module 14, relating to a pre-recorded voice message (column 21, lines 33-36);

- a summer in the interface 66; and

- a recording/playback module 12 for recording a telephone conversation (column 16, lines 2-5; column 22, lines 38-43);

Chamberline fails to teach recording a microphone signal while said microphone signal is combined with said message playback for transmitting to a far end user.

However, Villa-Real discloses a programmable telephone system in figures 1-6. Villa-Real teaches playback a pre-recorded advisory message during a telephone conversation when a conversation recording button is activated (column 2, lines 19-28; column 12 line 57 to column 13, line 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Chamberlin's reference with the teachings of Villa-Real so that when a recording button of the recording/playback module 12 was

activated during a telephone conversation, a pre-recorded message from the recording/playback module 14 advising the far end party about telephone conversation recording, would have been played back and combined with a microphone signal to be transmitted over a telephone line [since the speakerphone 18 operated independently from recording/playback modules 12 and 14, the microphone signal would not have been muted, and any signal, voice or background noise, would have been transmitted with the pre-recorded message to the far end party], because such a modification would have enabled a near end user to address legal issues by playing an advisory message to a far end party, and recording the advisory message with a telephone conversation.

3.2 Regarding claim 2, the Chamberlin's reference, modified by Villa-Real, the recording/playback module 14 inherently has an amplifier [message gain module] between the message playback signal and the summer.

3.3 Regarding claim 9, the Chamberlin's reference, modified by Villa-Real, is a telephone answering device (column 21, lines 27-36).

3.4 Regarding claims 10 and 15, Chamberlin discloses a modular telephone system in figures 4 and 6. Chamberlin teaches using a speakerphone 18 (column 13, lines 29-31) with two recording/playback modules 12 and 14, one for playback and one for recording (column 21, lines 27-36). Chamberlin also teaches independent operation of each recording/playback module, and independent operation of the speakerphone (column

16, lines 19-43). Chamberlin teaches using the recording/playback module 12 for recording a telephone conversation and the recording/playback module 14 for playback a pre-recorded message to a far end user (column 16, lines 2-5; column 22, lines 38-43). Chamberlin teaches the steps of:

establishing a telephone call (column 7, lines 10-13; column 13, lines 29-33);
initiating a transmit function of a speakerphone generating a microphone signal [it is inherent that a speakerphone generates a microphone signal] (column 13, lines 29-31);

playing back a voice message pre-recorded on said speakerphone generating a playback message signal (column 16, lines 24-29; column 22, lines 38-43); and

recording a telephone conversation (column 16, lines 2-5, 24-29; column 22, lines 38-43).

Chamberlin fails to teach combining said microphone signal with said playback message signal, and transmitting said combined microphone signal and playback signal to a far end party over a telephone line.

However, Villa-Real discloses a programmable telephone system in figures 1-6. Villa-Real teaches playback a pre-recorded advisory message during a telephone conversation when a conversation recording button is activated (column 2, lines 19-28; column 12 line 57 to column 13, line 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Chamberlin's reference with the teachings of Villa-Real so that when a recording button of the recording/playback module 12 was

activated during a telephone conversation, a pre-recorded message from the recording/playback module 14 advising the far end party about telephone conversation recording, would have been played back and combined with a microphone signal to be transmitted over a telephone line [since the speakerphone 18 operated independently from recording/playback modules 12 and 14, the microphone signal would not have been muted, and any signal, voice or background noise, would have been transmitted with the pre-recorded message to the far end party], because such a modification would have enabled a near end user to address legal issues by playing an advisory to a far end party, and recording the advisory message with a telephone conversation.

4. Claims 3-5, 11-13 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chamberlin et al. US 4,817,127 in view of Villa-Real US 4,481,382 and further in view of Li US 5,612,996.

4.1 Regarding claims 3, 12 and 17, the Chamberlin's reference, modified by Villa-Real, teaches a message gain module, but fails to teach that the message gain module comprises an automatic gain control (AGC) portion and a fixed a gain portion.

However, Li discloses a speakerphone in figure 2, Li teaches an AGC 228 and a fixed gain module 218.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Chamberlin's reference, which was modified by Villa-Real, with the teachings of Li, so that a gain module would have been

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comprised an AGC and a fixed gain module, with the teaching of Li, so that the message gain module would have comprised an AGC portion and a fixed gain portion, because such a modification would have enabled the system to maintain a pre-determined signal level at the summer.

4.2 Regarding claims 4, 11 and 16, the Chamberlin's reference, modified by Villa-Real, teaches a gain module for the microphone, but fails to teach that the gain module comprises an automatic gain control (AGC) portion and a fixed a gain portion.

However, Li discloses a speakerphone in figure 2, Li teaches an AGC 228 and a fixed gain module 218.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Chamberlin's reference, which was modified by Villa-Real, with the teachings of Li, so that the gain module would have been comprising an AGC and a fixed gain module, because such a modification would have automatically adjust the amplification factor of the gain module to satisfy various requirement.

4.3 Regarding claim 5, the Chamberlin's reference, modified by Villa-Real, teaches recording a telephone conversation with a playback message, but fails to teach a switched loss echo suppression module in the speakerphone 18.

However, Li discloses a speakerphone in figure 2, Li teaches a switched loss echo suppression module 232 (column 6, lines 15-29, 40-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Chamberlin's reference, which was modified by Villa-Real, with the teachings of Li, so that a switched loss echo suppression module would have been included, because such module would have been reduced feedback from the microphone in a receiving mode, and such a component was widely used in speakerphones.

4.4 Regarding claims 13 and 18, as discussed in claims 11, 12, 16 and 17, both message playback gain module and the gain module of microphone are automatically controlled.

5. Claims 6, 7, 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chamberlin et al. US 4,817,127 in view of Villa-Real US 4,481,382 and further in view of Li US 5,612,996 and further in view of Sacca US 5,692,042.

5.1 Regarding claim 6, the Chamberlin's reference, modified by Villa-Real and Li, teaches a switched loss echo suppression module in speakerphone 18, Chamberlin further teaches that the message playback signal is combined with the microphone signal at an interface (Figure 6), but fails to specifically teach that the interface is after the switched loss echo suppression module.

However, Sacca discloses a voice messaging system with speakerphone capability in figure 1 (column 7, lines 33). Sacca teaches transmitting a tape playback

message, via switch 118 and amplifier 120, to a far end party in a speakerphone mode (column 8, lines 7-14, 26-29, 36-46). Sacca teaches that in the speakerphone mode, switches 112, 122 and 136 are closed (column 9, lines 45-47; column 8, lines 36-41) so that the tape playback message is combined with signals from microphone 127 at summing amplifier 142, after a switched loss echo suppression module 147 (column 8, lines 39-49; figure 1), and individual users at either end can hear a playback message (switches 118 and 134 are closed) and concurrently converse with one another as desired.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Chamberlin's reference, which was modified by Villa-Real and LI, with the teachings of Sacca, so that the message playback signal would have been combined with the microphone signal after the switched loss echo suppression module, because such module would have clarified the teaching of Chamberlin.

5.2 Regarding claim 7, the Chamberlin's reference, modified by Villa-Real, Li and Sacca, teaches combining the message playback signal with the microphone signal after a switched echo loss suppression module, but fails to teach a digital to analog converter (DAC) at a point of a transmit path.

However, Li discloses a speakerphone in figure 2, Li further teaches a DAC 234.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Chamberlin's reference, which was

modified by Villa-Real, Li and Sacca, with the further teachings of Li, so that the Chamberlin's speakerphone 18 would have been a digital phone and a DAC would have comprised a DAC, because a DAC would have been required to convert digital signals in to analog to be coupled onto a telephone line.

5.3 Regarding claims 14 and 19, the Chamberlin's reference, modified by Villa-Real and Li, teaches an adjustable gain module for the microphone, Chamberline further teaches that the message playback signal is combined with the microphone signal at an interface (Figure 6), but fails to specifically teach that the interface is after a gain the microphone signal is adjusted.

However, Sacca discloses a voice messaging system with speakerphone capability in figure 1 (column 7, lines 33). Sacca teaches transmitting a tape playback message, via switch 118 and amplifier 120, to a far end party in a speakerphone mode (column 8, lines 7-14, 26-29, 36-46). Sacca teaches that in the speakerphone mode, switches 112, 122 and 136 are closed (column 9, lines 45-47; column 8, lines 36-41) so that the tape playback message is combined with signals from microphone 127 at summing amplifier 142, after an adjustable gain module 147 (column 8, lines 39-49; figure 1), and individual users at either end can hear a playback message (switches 118 and 134 are closed) and concurrently converse with one another as desired.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Chamberlin's reference, which was modified by Villa-Real and LI, with the teachings of Sacca, so that the message

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playback signal would have been combined with the microphone signal after an said microphone signal is adjusted, because such module would have clarified the teaching of Chamberlin.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chamberlin et al. US 4,817,127 in view of Villa-Real US 4,481,382 and further in view of Sacca US 5,692,042.

The Chamberlin's reference, modified by Villa-Real, teaches recording a telephone conversation and playback an advisory message to a far end party, but fails to teach a transmit voice activity detector in communication with a transmit path.

However, Sacca discloses a voice messaging system with speakerphone capability in figure 1 (column 7, lines 33). Sacca teaches transmitting a tape playback message, via switch 118 and amplifier 120, to a far end party in a speakerphone mode (column 8, lines 7-14, 26-29, 36-46). Sacca teaches that in the speakerphone mode, switches 112, 122 and 136 are closed (column 9, lines 45-47; column 8, lines 36-41) so that the tape playback message is combined with signals from microphone 127 at summing amplifier 142 (column 8, lines 39-49; figure 1), and individual users at either end can hear a playback message (switches 118 and 134 are closed) and concurrently converse with one another as desired. Sacca further teaches a transmit voice activity detector 154 in communication with a transmit path, said transmit voice activity detector indicating a transmit condition of said speakerphone (column 2, lines 28-37; column 8, line 63 to column 9, line 6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Chamberlin's reference, which was modified by Villa-Real, with the teachings of Sacca, so that the a transmit voce activity detector would have been included, because such a modification would have reduced the gain of the receiving path to a minimum and thus would have reduced the side tone coupling to the speaker.

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Villa-Real US 4,481,382 in view of Sacca US 5,692,042.

Villa-Real discloses a programmable telephone system in figures 1-6. Villa-Real teaches playback a pre-recorded message during a telephone conversation while the conversation is being recorded [playback a pre-recorded message after a recording button is activated] (column 2, lines 19-28; column 12 line 57 to column 13, line 18), comprising:

- a microphone signal (a telephone inherently has a microphone which produces a signal);

- a gain module (a microphone inherently requires an amplifier to boost its signal level for further processing);

- a message playback signal relating to a pre-recorded voice message (column 2, lines 19-28; column 13, lines 6-18); and

Villa-Real teaches recording a conversation with a playback message, but fails to specifically teach how the microphone is combined with the message playback signal.

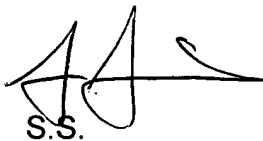
However, Sacca discloses a voice messaging system with speakerphone capability in figure 1 (column 7, lines 33). Sacca teaches transmitting a synthesized speech message, via switch 110 and amplifier 120, to a far end party in a speakerphone mode (column 8, lines 7-14, 26-29, 36-46). Sacca teaches that in the speakerphone mode, switches 112, 122 and 136 are closed (column 9, lines 45-47; column 8, lines 36-41) so that the synthesized speech message is combined at summing amplifier 142 with signals from microphone 127 (column 8, lines 39-49; figure 1), and individual users at either end can hear a played message (switches 110 and 134 are closed) and concurrently converse with one another as desired.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Villa-Real reference with the teachings of Sacca so that the telephone system of villa-Real would have had a speakerphone capability and there would have been a summer for summing the microphone signal and the pre-recorded message such that a near end user would have been able to talk to the far end party while the pre-recorded message was playing, because using a speakerphone would have provided a hands-free feature to users, and such a modification would have enabled a near user to advise the far end party about conversation recording.

Conclusion

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Sing whose telephone number is (703) 305-3221. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached at (703) 305-4895. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.



S.S.

06/26/2003

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